



Express Mail EV 712472182 US

PTO/SB/08a/b (07-05)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449A/B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/729,349-Conf. #8267	
			Filing Date	December 5, 2003	
			First Named Inventor	John L. Klocke	
			Art Unit	1745	
			Examiner Name	Harry D. Wilkins III	
Sheet	1	of	11	Attorney Docket Number	291958237US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
HW	AA	US-08/940,524	09-30-1997	BLECK ET AL.	
	AB	US-09/114,105	07-11-1998	WOODRUFF ET AL.	
	AC	US-09/679,928	10-05-2000	WOODRUFF ET AL.	
	AD*	US-1,526,644	02-17-1925	PINNEY	
	AE*	US-1,881,713	10-11-1932	LAUKEL	
	AG*	US-2,256,274	09-16-1941	BOEDECKER ET AL.	
	AH*	US-2002-0008036	01-24-2002	HUI WANG	
	AI*	US-2002-0032499	03-14-2002	GREGORY WILSON	
	AJ*	US-2002-0125141	09-12-2002	GREGORY WILSON	
	AK*	US-2002-0139678	10-03-2002	GREGORY WILSON	
	AL*	US-2003-0038035	02-27-2003	GREGORY WILSON	
	AM*	US-2003-0062258	04-03-2003	DANIEL WOODRUFF	
	AN*	US-2003-0070918	04-17-2003	KYLE HANSON	
	AO*	US-2003-0127337	07-10-2003	KAYLE HANSON	
	AP*	US-2004-0031693	02-19-2004	LINLIN CHEN	
	AQ*	US-2004-0055877	03-25-2004	GREGORY WILSON	
	AR*	US-2004-0099533	05-27-2004	GREGORY WILSON	
	AS*	US-2004-0188259	09-30-2004	GREGORY WILSON	
	AT*	US-2005-0087439-A1	04-28-2005	HANSON ET AL.	
	AU*	US-2005-0121326-A1	06-09-2005	KLOCKE ET AL.	
	AV*	US-3,309,263	03-14-1967	GROBE	
	AW*	US-3,616,284	10-26-1971	BODMER ET AL.	
	AX*	US-3,664,933	05-23-1972	CLAUSS	
	AY*	US-3,706,635	12-19-1972	KOWALSKI	
	AZ*	US-3,706,651	12-30-1970	LELAND	
	AA1*	US-3,716,462	02-13-1973	JENSEN	
	AB1*	US-3,798,003	03-19-1974	ENSLEY ET AL.	
	AC1*	US-3,798,033	03-19-1974	YOST, JR.	
	AD1*	US-3,878,066	04-15-1975	DETTKE ET AL.	
	AE1*	US-3,930,963	01-06-1976	POLICHETTE ET AL.	
	AF1*	US-3,968,885	07-13-1976	HASSAN ET AL.	
	AG1*	US-4,000,046	12-28-1976	WEAVER	
	AH1*	US-4,022,679	05-10-1977	KOZIOL ET AL.	
	AI1*	US-4,030,015	10-20-1975	HERKO ET AL.	
	AJ1*	US-4,046,105	09-06-1977	GOMEZ	
	AK1*	US-4,072,557	02-07-1978	SCHIEL	
	AL1*	US-4,082,638	04-04-1978	JUMER	
	AM1*	US-4,113,577	09-12-1978	ROSS ET AL.	
	AN1*	US-4,134,802	01-16-1976	HERR	
	AO1*	US-4,137,867	02-06-1979	AIGO	
	AP1*	US-4,165,252	08-21-1979	GIBBS	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete If Known</b>	
				Application Number	10/729,349-Conf. #8267
				Filing Date	December 5, 2003
				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	Harry D. Wilkins III
Sheet	2	of	11	Attorney Docket Number	291958237US

HW	AQ1*	US-4,170,959	10-16-1979	AIGO	
	AR1*	US-4,222,834	09-16-1980	BACON ET AL.	
	AS1*	US-4,238,310	12-09-1980	ECKLER ET AL.	
	AT1*	US-4,246,088	01-20-1981	MURPHY ET AL.	
	AU1*	US-4,259,166	03-31-1981	WHITEHURST	
	AV1*	US-4,287,029	09-01-1981	KOUICHI SHIMAMURA	
	AW1*	US-4,304,641	12-08-1981	GRANDIA ET AL.	
	AX1*	US-4,323,433	04-06-1982	DAVID M. LOCH	
	AY1*	US-4,341,629	07-27-1982	UHLINGER	
	AZ1*	US-4,360,410	11-23-1982	FLETCHER ET AL.	
	AA2*	US-4,378,283	03-29-1983	MICHAEL SEYFFERT	
	AB2*	US-4,384,930	05-24-1983	ECKLES	
	AC2*	US-4,391,694	07-05-1983	BENGT W. RUNSTEN	
	AD2*	US-4,422,915	12-27-1983	WIELONSKI ET AL.	
	AE2*	US-4,431,361	02-14-1984	BAYNE	
	AF2*	US-4,437,943	03-20-1984	ALEXANDER F. BECK	
	AG2*	US-4,440,597	04-03-1984	WELLS ET AL.	
	AH2*	US-4,443,117	04-17-1984	MURAMOTO ET AL.	
	AI2*	US-4,449,885	05-22-1984	RICHARD J. HERTEL	
	AJ2*	US-4,451,197	05-29-1984	LANGE	
	AK2*	US-4,463,503	08-07-1984	ROBERT D. APPLGATE	
	AL2*	US-4,466,864	08-21-1984	DUANE E. BACON	
	AM2*	US-4,469,564	09-04-1984	OKINAKA ET AL.	
	AN2*	US-4,469,566	09-04-1984	WRAY	
	AO2*	US-4,475,823	10-09-1984	STONE	
	AP2*	US-4,480,028	10-30-1984	KATO ET AL.	
	AQ2*	US-4,495,153	01-22-1985	MINORU MIDORIKAWA	
	AR2*	US-4,495,453	01-22-1985	HAJIMU INABA	
	AS2*	US-4,500,394	02-19-1985	JOHN S. RIZZO	
	AT2*	US-4,529,480	07-16-1985	TROKHAN	
	AU2*	US-4,541,895	09-17-1985	ALBERT	
	AV2*	US-4,566,847	01-28-1986	TAKASHI MAEDA	
	AW2*	US-4,576,685	03-18-1986	GOFFREDO ET AL.	
	AX2*	US-4,576,689	03-18-1986	ALMAXUD M. MAKKAEV	
	AY2*	US-4,585,539	04-29-1986	EDSON	
	AZ2*	US-4,604,177	08-05-1986	OLIVO G. SIVILOTTI	
	AA3*	US-4,604,178	08-05-1986	DALE R. FIEGENER	
	AB3*	US-4,634,503	01-06-1987	DANIEL NOGAVICH	
	AC3*	US-4,639,028	01-27-1987	OLSON	
	AD3*	US-4,648,944	03-10-1987	GEORGE ET AL.	
	AE3*	US-4,670,126	06-02-1987	MESSER ET AL.	
	AF3*	US-4,685,414	08-11-1987	DIRICO	
✓	AG3*	US-4,687,552	08-18-1987	EARLY ET AL.	
	AH3*	US-4,693,017	09-15-1987	OEHLER ET AL.	
HW	AJ3*	US-4,696,729	09-29-1987	SANTINI	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/729,349-Conf. #8267
				Filing Date	December 5, 2003
				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	Harry D. Wilkins III
Sheet	3	of	11	Attorney Docket Number	291958237US

HW	AJ3*	US-4,715,934	12-29-1987	TAMMINEN	
	AK3*	US-4,741,624	05-03-1988	BARROYER	
	AL3*	US-4,760,671	08-02-1988	WILLIAM R. WARD	
	AM3*	US-4,761,214	08-02-1988	EDMUND R. HINMAN	
	AN3*	US-4,770,590	09-13-1988	HUGUES ET AL.	
	AO3*	US-4,781,800	11-01-1988	LEE M. GOLDMAN	
	AP3*	US-4,800,818	01-31-1989	KAWAGUCHI ET AL.	
	AQ3*	US-4,828,654	05-09-1989	RONALD G. REED	
	AR3*	US-4,849,054	07-18-1989	KLOWAK	
	AS3*	US-4,858,539	08-22-1989	SCHUMANN	
	AT3*	US-4,864,239	09-05-1989	CASARCIA ET AL.	
	AU3*	US-4,868,992	09-26-1989	CRAFTS ET AL.	
	AV3*	US-4,898,647	02-06-1990	LUCE ET AL.	
	AW3*	US-4,902,398	02-20-1990	HOMSTAD	
	AX3*	US-4,906,341	03-06-1990	KOJI YAMAKAWA	
	AY3*	US-4,913,035	08-02-1988	VOHRINGER ET AL.	
	AZ3*	US-4,924,890	05-15-1990	GILES ET AL.	
	AA4*	US-4,944,650	07-31-1990	MATSUMOTO	
	AB4*	US-4,949,671	08-21-1990	DAVIS ET AL.	
	AC4*	US-4,951,601	08-28-1990	MAYDAN ET AL.	
	AD4*	US-4,959,278	09-25-1990	HIDENORI SHIMAUCH	
	AE4*	US-4,962,726	10-16-1990	MATSUSHITA ET AL.	
	AF4*	US-4,979,464	12-25-1990	KUNZE-CONCEWITZ ET AL.	
	AG4*	US-4,988,533	01-29-1991	FREEMAN ET AL.	
	AH4*	US-5,000,827	03-19-1991	VIRGIL E. SCHUSTER	
	AI4*	US-5,024,746	06-18-1991	STIERMAN ET AL.	
	AJ4*	US-5,026,239	06-25-1991	CHIBA	
	AK4*	US-5,048,589	09-17-1991	COOK ET AL.	
	AL4*	US-5,054,988	10-08-1991	SHIRAIWA	
	AM4*	US-5,055,036	10-08-1991	ASANO ET AL.	
	AN4*	US-5,061,144	10-29-1991	MASAMI AKIMOTO	
	AO4*	US-5,069,548	12-03-1991	BOEHNLEIN	
	AP4*	US-5,078,852	01-07-1992	IAN Y.K. YEE	
	AQ4*	US-5,083,364	01-28-1992	OLBRICH ET AL.	
	AR4*	US-5,096,550	03-17-1992	STEVEN T. MAYER	
	AS4*	US-5,110,248	05-05-1992	ASANO ET AL.	
	AT4*	US-5,115,430	05-19-1992	ELLEN L. HAHNE	
	AU4*	US-5,125,784	06-30-1992	ASANO	
	AV4*	US-5,128,912	07-07-1992	HUG ET AL.	
	AW4*	US-5,135,636	08-04-1992	YEE ET AL.	
	AX4*	US-5,138,973	08-18-1992	DAVIS ET AL.	
	AY4*	US-5,146,136	09-08-1992	TOSHIO OGURA	
	AZ4*	US-5,151,168	09-29-1992	TERRY L. GILTON	
	AA5*	US-5,155,336	10-13-1992	GRONET ET AL.	
HW	AB5*	US-5,156,174	10-20-1992	RAYMON F. THOMPSON	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>			<b>Complete if Known</b>		
			Application Number	10/729,349-Conf. #8267	
			Filing Date	December 5, 2003	
			First Named Inventor	John L. Klocke	
			Art Unit	1745	
			Examiner Name	Harry D. Wilkins III	
Sheet	4	of	11	Attorney Docket Number	291958237US

HW	AC5*	US-5,156,730	10-20-1992	ANILKUMAR C. BHATT	
	AD5*	US-5,168,886	12-08-1992	THOMPSON ET AL.	
	AE5*	US-5,168,887	12-08-1992	RAYMON F. THOMPSON	
	AF5*	US-5,169,408	12-08-1992	BIGGERSTAFF ET AL.	
	AG5*	US-5,172,803	12-22-1992	LEWIN	
	AH5*	US-5,174,045	12-29-1992	THOMPSON ET AL.	
	AI5*	US-5,178,512	01-12-1993	SKROBAK	
	AJ5*	US-5,178,639	01-12-1993	NISHI	
	AK5*	US-5,180,273	01-19-1993	SALAYA ET AL.	
	AL5*	US-5,183,377	02-02-1993	BECKER ET AL.	
	AM5*	US-5,186,594	02-16-1993	TOSHIMA ET AL.	
	AN5*	US-5,209,817	05-11-1993	UMAR M. AHMAD	
	AO5*	US-5,217,586	06-08-1993	MADHAV DATTA	
	AP5*	US-5,222,310	06-29-1993	RAYMON F. THOMPSON	
	AQ5*	US-5,227,041	07-13-1993	BRUCE N. BROGDEN	
	AR5*	US-5,228,232	07-20-1993	RODNEY MILES	
	AS5*	US-5,228,966	07-20-1993	SATOSHI MURATA	
	AT5*	US-5,230,371	07-27-1993	LEE	
	AU5*	US-5,232,511	08-03-1993	BERGMAN	
	AV5*	US-5,235,995	08-17-1993	BERGMAN ET AL.	
	AW5*	US-5,238,500	08-24-1993	BERGMAN	
	AX5*	US-5,252,137	10-12-1993	TATEYAMA ET AL.	
	AY5*	US-5,252,807	10-12-1993	CHIZINSKY	
	AZ5*	US-5,256,262	10-26-1993	BLOMSTERBERG	
	AA6*	US-5,256,274	10-26-1993	JAIME PORIS	
	AB6*	US-5,271,953	12-21-1993	LITTERAL	
	AC6*	US-5,271,972	12-21-1993	KWOK ET AL.	
	AD6*	US-5,301,700	04-12-1994	KAMIKAWA ET AL.	
	AE6*	US-5,302,464	04-12-1994	TAKUJI NOMURA	
	AF6*	US-5,306,895	04-26-1994	USHIKOSHI ET AL.	
	AG6*	US-5,314,294	09-24-1994	TAKAO TANIGUCHI	
	AH6*	US-5,316,642	05-31-1994	DAVID J. YOUNG	
	AI6*	US-5,326,455	07-05-1994	KUBO ET AL.	
	AJ6*	US-5,330,604	07-19-1994	ALLUM ET AL.	
	AK6*	US-5,332,271	07-26-1994	GRANT ET AL.	
	AL6*	US-5,332,445	07-26-1994	BERGMAN	
	AM6*	US-5,340,456	08-23-1994	MEHLER	
	AN6*	US-5,344,491	09-06-1994	MARIKO KATOU	
	AO6*	US-5,348,620	09-20-1994	HERMANS ET AL.	
	AP6*	US-5,364,504	11-15-1994	SMURKOSKI ET AL.	
	AQ6*	US-5,366,785	11-22-1994	SAWDAL	
	AR6*	US-5,366,786	11-22-1994	CONNOR ET AL.	
✓	AS6*	US-5,368,711	11-29-1994	JAIME PORIS	
	AT6*	US-5,372,848	12-13-1994	KIM J. BLACKWELL	
HW	AU6*	US-5,376,176	12-27-1994	ATSUSHI KURIYAMA	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/729,349-Conf. #8267
				Filing Date	December 5, 2003
				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	Harry D. Wilkins III
Sheet	5	of	11	Attorney Docket Number	291958237US

HW	AV6*	US-5,377,708	01-03-1995	ERIC J. BERGMAN	
	AW6*	US-5,388,945	02-14-1995	GARRIC ET AL.	
	AX6*	US-5,391,285	02-21-1995	WILLIAM H. LYTLE	
	AY6*	US-5,391,517	02-21-1995	GELATOS ET AL.	
	AZ6*	US-5,405,518	04-11-1995	HSIEH ET AL.	
	AA7*	US-5,411,076	05-02-1995	MATSUNAGA ET AL.	
	AB7*	US-5,421,987	06-06-1995	TZANAVARAS ET AL.	
	AC7*	US-5,427,674	06-27-1995	LANGENSKIOLD ET AL.	
	AD7*	US-5,429,686	07-04-1995	CHIU ET AL.	
	AE7*	US-5,429,733	07-04-1995	HIROFUMI ISHIDA	
	AF7*	US-5,431,803	07-11-1995	DIFRANCO ET AL.	
	AG7*	US-5,437,777	08-01-1995	SHUJI KISHI	
	AH7*	US-5,441,629	08-15-1995	KOSAKI	
	AI7*	US-5,442,416	08-15-1995	TATEYAMA ET AL.	
	AJ7*	US-5,443,707	08-22-1995	MORI	
	AK7*	US-5,445,484	08-29-1995	KATO ET AL.	
	AL7*	US-5,447,615	09-05-1995	ISHIDA	
	AM7*	US-5,454,405	10-03-1995	HAWES	
	AN7*	US-5,460,478	10-24-1995	AKIMOTO ET AL.	
	AO7*	US-5,464,313	11-07-1995	OHSAWA	
	AP7*	US-5,472,502	12-05-1995	WILLIAM T. BATCHELDER	
	AQ7*	US-5,489,341	02-06-1996	BERGMAN ET AL.	
	AR7*	US-5,500,081	03-19-1996	BERGMAN	
	AS7*	US-5,501,768	03-26-1996	HERMANS ET AL.	
	AT7*	US-5,508,095	04-16-1996	ALLUM ET AL.	
	AU7*	US-5,512,319	04-30-1996	COOK ET AL.	
	AV7*	US-5,514,258	05-07-1996	BRINKET ET AL.	
	AW7*	US-5,516,412	02-06-1996	ANDRICACOS ET AL.	
	AX7*	US-5,522,975	06-04-1996	ANDRICACOS ET AL.	
	AY7*	US-5,527,390	06-18-1996	ONO ET AL.	
	AZ7*	US-5,544,421	08-13-1996	THOMPSON ET AL.	
	AA8*	US-5,549,808	08-27-1996	MUKTA S. FAROOQ	
	AB8*	US-5,567,267	10-22-1996	KAZAMA ET AL.	
	AC8*	US-5,571,325	11-05-1996	TSUTOMU UYEYAMA	
	AD8*	US-5,575,611	11-19-1996	THOMPSON ET AL.	
	AE8*	US-5,584,310	12-17-1996	ERIC J. BERGMAN	
	AF8*	US-5,584,971	12-17-1996	KOMINO	
	AG8*	US-5,593,545	01-14-1997	RUGOWSKI ET AL.	
	AH8*	US-5,597,460	01-28-1997	H. VINCENT REYNOLDS	
	AJ8*	US-5,597,836	01-28-1997	HACKLER ET AL.	
	AJ8*	US-5,600,532	02-04-1997	MICHIYA ET AL.	
	AK8*	US-5,609,239	03-11-1997	SCHLECKER	
	AL8*	US-5,620,581	04-15-1997	ANG	
	AM8*	US-5,639,206	06-17-1997	ODA ET AL.	
HW	AN8*	US-5,639,316	06-17-1997	CYRIL CABRAL	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete If Known</b>	
				Application Number	10/729,349-Conf. #8267
				Filing Date	December 5, 2003
				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	Harry D. Wilkins III
Sheet	6	of	11	Attorney Docket Number	291958237US

HW	AO8*	US-5,641,613	06-24-1997	BOFF ET AL.	
	AP8*	US-5,650,082	07-22-1997	ANDERSON	
	AQ8*	US-5,651,823	07-29-1997	PARODI ET AL.	
	AR8*	US-5,658,387	08-19-1997	TIMOTHY J. REARDON	
	AS8*	US-5,660,472	08-26-1997	PEUSE ET AL.	
	AT8*	US-5,660,517	08-26-1997	THOMPSON ET AL.	
	AU8*	US-5,662,788	09-02-1997	GURTEJ SANDHU	
	AV8*	US-5,664,337	09-09-1997	DAVIS ET AL.	
	AW8*	US-5,670,034	09-23-1997	KENNETH J. LOWERY	
	AX8*	US-5,676,337	10-14-1997	GIRAS ET AL.	
	AY8*	US-5,677,118	10-14-1997	SPARA ET AL.	
	AZ8*	US-5,678,320	10-21-1997	THOMPSON ET AL.	
	AA9*	US-5,681,392	10-28-1997	EUGENE A. SWAIN	
	AB9*	US-5,683,564	11-04-1997	REYNOLDS	
	AC9*	US-5,684,654	11-04-1997	SEARLE ET AL.	
	AD9*	US-5,684,713	11-04-1997	ASADA ET AL.	
	AE9*	US-5,700,127	12-23-1997	JUNJI HARADA	
	AF9*	US-5,711,646	01-27-1998	UEDA ET AL.	
	AG9*	US-5,723,028	03-03-1998	JAIME PORIS	
	AH9*	US-5,731,678	03-24-1998	ZILA ET AL.	
	AI9*	US-5,744,019	04-28-1998	ANG	
	AJ9*	US-5,746,565	05-05-1998	TEPOLT	
	AK9*	US-5,747,098	05-05-1998	LARSON	
	AL9*	US-5,754,842	05-19-1998	MINAGAWA	
	AM9*	US-5,755,948	05-26-1998	LAZARO ET AL.	
	AN9*	US-5,759,006	06-02-1998	MIYAMOTO ET AL.	
	AO9*	US-5,762,751	06-09-1998	MARTIN C. BLECK	
	AP9*	US-5,765,444	06-16-1998	PAUL BACCHI	
	AQ9*	US-5,765,889	06-16-1998	NAM ET AL.	
	AR9*	US-5,776,327	07-07-1998	BOTTS ET AL.	
	AS9*	US-5,785,826	07-28-1998	ALEX GREENSPAN	
	AT9*	US-5,788,829	08-04-1998	JOSHI ET AL.	
	AU9*	US-5,802,856	08-09-1998	SCHAPER ET AL.	
	AV9*	US-5,829,791	11-03-1998	KOTSUBO ET AL.	
	AW9*	US-5,843,296	12-01-1998	GREESPAN	
	AX9*	US-5,871,626	02-16-1999	DOUGLAS E. CRAFTS	
	AY9*	US-5,871,805	01-01-2001	JEROME LEMELSON	
	AZ9*	US-5,882,498	03-16-1999	VALERY DUBIN	
	AAA*	US-5,892,207	04-06-1999	KAWAMURA ET AL.	
	ABA*	US-5,904,827	05-18-1999	REYNOLDS	
	ACA*	US-5,908,543	06-01-1999	TAKASHI MATSUNAMI	
	ADA*	US-5,925,227	07-20-1999	KOBAYASHI ET AL.	
	AEA*	US-5,932,077	08-03-1999	H. VINCENT REYNOLDS	
	AFA*	US-5,937,142	08-10-1999	MOSLEHI ET AL.	
HW	AGA*	US-5,957,836	09-28-1999	JOHNSON	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/729,349-Conf. #8267
				Filing Date	December 5, 2003
				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	Harry D. Wilkins III
Sheet	7	of	11	Attorney Docket Number	291958237US

HW	AHA*	US-5,980,706	11-09-1999	MARTIN BLECK	
	AIA*	US-5,985,126	11-16-1999	MARTIN C. BLECK	
	AJA*	US-5,989,397	11-23-1999	LAUBE ET AL.	
	AKA*	US-5,989,406	11-23-1999	CHARLES P. BEETZ	
	ALA*	US-5,998,123	12-07-1999	TANAKA ET AL.	
	AMA*	US-5,999,886	12-07-1999	MARTIN ET AL.	
	ANA*	US-6,001,235	12-14-1999	ARKEN ET AL.	
	AOA*	US-6,004,828	12-21-1999	KYLE M. HANSON	
	APA*	US-6,017,820	01-25-2000	TING ET AL.	
	AQA*	US-6,027,631	02-22-2000	ELIOT K. BROADBENT	
	ARA*	US-6,028,986	02-22-2000	SONG	
	ASA*	US-6,051,284	04-18-2000	JOSHUA BYRNE	
	ATA*	US-6,053,687	04-25-2000	THOMAS I. KIRKPATRICK	
	AUA*	US-6,072,160	06-06-2000	BAHL	
	AVA*	US-6,072,163	06-06-2000	ARMSTRONG ET AL.	
	AWA*	US-6,074,544	06-13-2000	JONATHAN D. REID	
	AXA*	US-6,080,288	06-27-2000	SCHWARTZ ET AL.	
	AYA*	US-6,080,291	06-27-2000	WOODRUFF ET AL.	
	AZA*	US-6,080,691	06-27-2000	LINDSAY ET AL.	
	AAB*	US-6,086,680	07-11-2000	FOSTER ET AL.	
	ABB*	US-6,090,260	07-18-2000	SATOSHI INOUE	
	ACB*	US-6,091,498	07-18-2000	KYLE HANSON	
	ADB*	US-6,099,702	08-08-2000	JONATHAN D. REID	
	AEB*	US-6,099,712	08-08-2000	THOMAS L. RITZDORF	
	AFB*	US-6,103,085	08-15-2000	WOO ET AL.	
	AGB*	US-6,107,192	08-22-2000	SUBRAHMANYAN ET AL.	
	AHB*	US-6,108,937	08-29-2000	RAAIJMAKERS	
	AIB*	US-6,110,011	08-29-2000	SASSON SOMEKH	
	AJB*	US-6,110,346	08-29-2000	JONATHAN D. REID	
	AKB*	US-6,130,415	10-10-2000	KNOOT	
	ALB*	US-6,136,163	10-24-2000	ROBIN CHEUNG	
	AMB*	US-6,139,703	10-31-2000	HANSON ET AL.	
	ANB*	US-6,139,712	10-31-2000	EVAN E. PATTON	
	AOB*	US-6,140,234	10-31-2000	UZOH ET AL.	
	APB*	US-6,143,147	11-07-2000	JELINEK	
	AQB*	US-6,143,155	01-01-2001	JOHN A. ADAMS	
	ARB*	US-6,151,532	11-21-2000	BARONE ET AL.	
	ASB*	US-6,156,167	12-05-2000	EVAN E. PATTON	
	ATB*	US-6,157,106	12-05-2000	TIETZ ET AL.	
	AUB*	US-6,159,354	12-12-2000	ROBERT J. CONTOLINI	
	AVB*	US-6,162,344	12-19-2000	JONATHAN D. REID	
	AWB*	US-6,162,488	12-19-2000	GEVELBER ET AL.	
	AXB*	US-6,168,695	01-02-2001	DANIEL J. WOODRUFF	
	AYB*	US-6,174,425	01-16-2001	SIMPSON ET AL.	
HW	AZB*	US-6,174,796	01-16-2001	TAKAGI ET AL.	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/729,349-Conf. #8267
				Filing Date	December 5, 2003
				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	Harry D. Wilkins III
Sheet	8	of	11	Attorney Docket Number	291958237US

HW	AAC*	US-6,179,983	01-30-2001	JONATHAN DAVID REID	
	ABC*	US-6,184,068	02-06-2001	OHTANI ET AL.	
	ACC*	US-6,193,859	02-27-2001	ROBERT J. CONTOLINI	
	ADC*	US-6,199,301	03-13-2001	WALLACE	
	AEC*	US-6,218,097	04-17-2001	BELL ET AL.	
	AFC*	US-6,221,230	01-01-2001	HIROMITSU TAKEUCHI	
	AGC*	US-6,228,232	05-08-2001	DANIEL J WOODRUFF	
	AHC*	US-6,234,738	05-22-2001	KAZUO KIMATA	
	AIC*	US-6,251,238	06-26-2001	KAUFMAN ET AL.	
	AJC*	US-6,251,528	06-26-2001	UZOH ET AL.	
	AKC*	US-6,254,742	07-03-2001	HANSON ET AL.	
	ALC*	US-6,258,220	07-10-2001	YEZDI DORDI	
	AMC*	US-6,261,433	07-17-2001	UZIEL LANDAU	
	ANC*	US-6,270,647	08-07-2001	LYNDON W. GRAHAM	
	AOC*	US-6,277,263	08-21-2001	LINLIN CHEN	
	APC*	US-6,278,089	08-21-2001	YOUNG ET AL.	
	AQC*	US-6,280,183	08-28-2001	MAYUR ET AL.	
	ARC*	US-6,280,582	08-28-2001	WOODRUFF ET AL.	
	ASC*	US-6,280,583	08-28-2001	WOODRUFF ET AL.	
	ATC*	US-6,297,154	10-02-2001	GROSS ET AL.	
	AUC*	US-6,303,010	10-16-2001	WOODRUFF ET AL.	
	AVC*	US-6,309,520	10-30-2001	WOODRUFF ET AL.	
	AWC*	US-6,309,524	10-30-2001	WOODRUFF ET AL.	
	AXC*	US-6,318,951	11-20-2001	WAYNE J. SCHMIDT	
	AYC*	US-6,322,112	11-27-2001	FRANKLIN DUNCAN	
	AZC*	US-6,322,677	11-27-2001	DANIEL WOODRUFF	
	AAD*	US-6,342,137	01-29-2002	DANIEL WOODRUFF	
	ABD*	US-6,365,729	01-01-2001	SANJAY TYAGI	
	ACD*	US-6,391,166	05-21-2002	HUI WANG	
	ADD*	US-6,402,923	06-11-2002	STEVEN MAYER	
	AED*	US-6,409,892	06-25-2002	WOODRUFF ET AL.	
	AFD*	US-6,428,660	08-06-2002	WOODRUFF ET AL.	
	AGD*	US-6,428,662	08-06-2002	WOODRUFF ET AL.	
	AHD*	US-6,444,101	03-14-2002	JOSEPH STEVENS	
	AID*	US-6,471,913	10-29-2002	WEAVER ET AL.	
	AJD*	US-6,481,956	11-19-2002	CHRISTOPHER A. HOFMEISTER	
	AKD*	US-6,491,806	12-10-2002	VALERY DUBIN	
	ALD*	US-6,497,801	12-24-2002	DANIEL J WOODRUFF	
	AMD*	US-6,527,920	03-04-2003	MAYER ET AL.	
	AND*	US-6,562,421	11-07-2002	GO SUDO	
	AOD*	US-6,565,729	01-24-2002	LINLIN CHEN	
	APD*	US-6,569,297	06-27-2002	GREGORY WILSON	
	AQD*	US-6,599,412	07-29-2003	LYNDON GRAHAM	
	ARD*	US-6,623,609	09-27-2001	RANDY HARRIS	
HW	ASD*	US-6,632,334	12-05-2002	TIMOTHY ANDERSON	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>			<b>Complete If Known</b>		
			Application Number	10/729,349-Conf. #8267	
			Filing Date	December 5, 2003	
			First Named Inventor	John L. Klocke	
			Art Unit	1745	
			Examiner Name	Harry D. Wilkins III	
Sheet	9	of	11	Attorney Docket Number	291958237US

HW	ATD*	US-6,654,122	11-25-2003	KYLE HANSON	
	AUD*	US-6,660,137	01-24-2002	GREGORY WILSON	
	AVD*	US-6,672,820	01-06-2004	KYLE HANSON	
	AWD*	US-6,678,055	05-29-2003	OFER DU-NOUR	
	AXD*	US-6,699,373	08-15-2002	DANIEL WOODRUFF	
	AYD*	US-6,709,562	01-01-2001	PANAYOTIS C. ANDRICACOS	
	AZD*	US-6,749,390-A1	09-27-2001	WOODRUFF	
	AAE*	US-6,752,584	11-22-2001	DANIEL WOODRUFF	
	ABE*	US-6,755,954-A1	12-26-2002	MAYER ET AL.	
	ACE*	US-6,773,571	08-10-2004	MAYER ET AL.	
	ADE*	US-6,780,374-A1	07-25-2002	WEAVER ET AL.	
	AEE*	US-6,916,412	10-25-2001	WOODRUFF	
	AFE*	US-6,921,468-A1	04-25-2002	GRAHAM ET AL.	
	AGE	US-60/129,055	04-13-1999	MCHUGH	
	AHE	US-60/143,769	07-12-1999	MCHUGH	
	AIE	US-60/182,160	02-14-2000	MCHUGH ET AL.	
	AJE	US-60/206,663	05-24-2000	WILSON ET AL.	
	AKE	US-60/294,690	05-30-2001	GIBBONS ET AL.	
	ALE	US-60/316,597	08-31-2001	HANSON	
	AME*	US-60/607,046	09-03-2004	KLOCKE	
HW	ANE*	US-60/607,460	09-03-2004	KLOCKE	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	† <sup>6</sup>
		Country Code <sup>2</sup> -Number <sup>3</sup> -Kind Code <sup>4</sup> (if known)					
↓   							

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/729,349-Conf. #8267
				Filing Date	December 5, 2003
				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	Harry D. Wilkins III
Sheet	10	of	11	Attorney Docket Number	291958237US

HW	BR	GB-2 279 372A	06-23-1994	KIMBERLY-CLARK CORP.		
	BS	JP-1048442	02-22-1989	TEXAS INSTRU JAPAN		✓
	BT	JP-11080993-A	03-26-1999	EBARA CORP		✓
	BU	JP-7197299-A	08-01-1995	CASIO COMPUTER CO. LTD.		✓
	BV	JP-4311591	11-04-1992	SUMITOMO METAL IND. LTD.		✓
	BW	JP-10-083960	03-31-1998	TAKASHI		✓
	BX	JP-5211224	08-20-1993	TEXAN INSTR JAPAN		✓
	BY	JP-6073598-A	03-15-1994	SUGANUMA KEIICHIRO		✓
	BZ	JP-4144150	05-18-1992	OKI ELECTRIC IND CO LTD		✓
	BA1	JP-5195183-A	08-03-1993	MITSUBISHI ELECTRIC CORP		✓
	BB1	JP-7113159-A	05-02-1995	CANON INC.		✓
	BC1	JP-6017291-A	01-25-1994	NEC CORP		✓
	BD1	JP-5146984	06-15-1993	MURATA MACH LTD.		✓
	BE1	JP-11036096-A	02-09-1999	NEC CORP		✓
	BF1	JP-6224202-A	08-12-1994	OKI ELECTRIC IND CO. LTD.		✓
	BG1	WO-02/099165	12-12-2002	SEMITOOL, INC.		
	BH1	WO-01/46910	02-25-1990	THE REGENTS OF UNIV OF CA		
	BI1	WO-00/02675	01-02-2000	SEMITOOL, INC.		
	BJ1	WO-01/91163	11-29-2001	SEMITOOL, INC.		
	BK1	WO-02/02808	01-20-2000	SEMITOOL, INC.		
	BL1	WO-02/97165	12-05-2002	SEMITOOL, INC.		
	BM1	WO-90/00476	01-25-1990	TUCKERMAN		
	BN1	WO-99/25904	05-27-1999	REID ET AL.		
	BO1	WO-02/99165	12-12-2002	SEMITOOL, INC.		
	BP1	WO-02/17203	02-28-2002	SABRE, INC.		
	BQ1	WO-99/45745	09-10-1999	ARMSTRONG ET AL.		
	BS1	WO-99/40615	08-12-1999	RITZDORF ET AL.		
	BT1	WO-95/06326	03-02-1995	SEMITOOL, INC.		
	BU1	WO-99/16936	04-08-1996	SEMITOOL, INC.		
	BV1	WO-99/25905	05-27-1999	PATTON ET AL.		
	BW1	WO-01/90434	11-29-2001	SEMITOOL, INC.		
	BX1	WO-00/32835	06-08-2000	DORDI ET AL.		
	BY1	WO-00/03072	01-20-2000	WOODRUFF ET AL.		
	BZ1	WO-00/61498	10-19-2000	WILSON ET AL.		
	BB2	WO-95/20064	07-27-1995	BERG		
	BD2	WO-03/18874	09-03-2002	SEMITOOL, INC.		
	BE2	WO-00/61837	10-19-2000	WILSON ET AL.		
	BF2	WO-91/04213	04-04-1991	WONG ET AL.		
	BG2	WO-02/045476	06-13-2002	SEMITOOL, INC.		
HW	BH2	WO-99/41434	08-19-1999	ACM RESEARCH, INC.		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/729,349-Conf. #8267
				Filing Date	December 5, 2003
				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	Harry D. Wilkins III
Sheet	11	of	11	Attorney Docket Number	291958237US

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
HW	CA	CONTOLINI ET AL., "Copper Electroplating Process for Sub-Half-Micron ULSI Structures," VMIC Conference 1995 ISMIC - 04/95/0322, pgs 322-328, June 17-29, 1995	
	CB	DEVARAJ et al., "Pulsed Electrodeposition of Copper," Plating & Surface Finishing, Pgs 72-78, August 1992	
	CC	DUBIN, "Copper Plating Techniques for ULSI Metallization," Advanced MicroDevices	
	CD	DUBIN, V.M., "Electrochemical Deposition of Copper for On-Chip Interconnects," Advanced MicroDevices	
	CE	GAUVIN et al., "The Effect of Chloride Ions on Copper Deposition," J. of Electrochemical Society, Vol 99, pgs 71-75, February 1952	
	CF	International Search Report for PCT/US02/28071; Semitool, Inc., December 13, 2002, 4 pgs.	
	CG	International Search Report PCT/US02/17203; Semitool, Inc., December 31, 2002, 4 pgs.	
	CH	LEE, TIEN-YU TOM et al., "Application of a CFD Tool in Designing a Fountain Plating Cell for Uniform Bump Plating of Semiconductor Wafers," IEEE Transactions On Components, Packaging and Manufacturing Technology - Part B, February 1996, pp 131-137, Vol 19, No. 1, IEEE	
	CI	LOWENHEIM, FREDERICK A., "Electroplating," January 1979, 12 pgs, McGraw-Hill Book Company, USA	
	CJ	OSERO, N.M., "An Overview of Pulse Plating," Plating and Surface Finishing, March 1986	
	CK	PASSAL, F., "Copper Plating During the Last Fifty Years," Plating, pgs 628-638, June 1959	
	CL	PATENT ABSTRACT OF JAPAN, "Organic Compound and its Application," Publication No. 08-003153, Publication Date: January 9, 1996	
	CM	PATENT ABSTRACT OF JAPAN, "Partial Plating Device," Publication No. 01234590, Publication Date: Sept 19, 1989	
	CN	PATENT ABSTRACT OF JAPAN, "Plating Method" Publication No. 57171690, Publication Date: October 22, 1982	
	CO	PATENT ABSTRACT OF JAPAN, English Abstract Translation - Japanese Utility Model No. 2538705, Publication Date: August 25, 1992	
	CP	PCT International Search Report for PCT/US02/17840, Semitool, Inc., March 2003, 5 pages	
↓	CQ	RITTER, G., et al., "Two-And Three-Dimensional Numerical Modeling of Copper Electroplating for Advanced ULSI Metallization," June 1999, 13 pgs, E-MRS Conference Symposium M. Basic Models to Enhance Reliability, Strasbourg, France	
HW	CR	SINGER, P., "Copper Goes Mainstream: Low k to Follow," Semiconductor International, pgs 67-70, November 1997.	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

Examiner Signature	/Harry Wilkins/	Date Considered	10/27/2006
--------------------	-----------------	-----------------	------------



PTO/SB/08a/b (07-05)  
Approved for use through 07/31/2006. OMB 0851-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete If Known</b>	
				Application Number	10/729,349-Conf. #8267
				Filing Date	December 5, 2003
				First Named Inventor	John L. Klocke
				Art Unit	1745
				Examiner Name	Not Yet Assigned
Sheet	1	of	1	Attorney Docket Number	291958237US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
HW		JP-03-103840	11-04-1992	Uemura		
HW		JP-59-150094A	08-28-1984	Teichiku KK		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature	/Harry Wilkins/	Date Considered	10/27/2006
-----------------------	-----------------	--------------------	------------